

Chapter 2

Command Post Operations

This chapter provides the FA battalion commander and his staff guidance for effective CP operations. It focuses on the main CP and the TOC, and discusses liaison operations. The chapter is organized into six sections. Section I provides an overview of the FA battalion CP. Section II discusses TOC organization and responsibilities. Section III provides examples and suggestions for TOC configurations. Section IV provides an overview of TOC information management. Section V covers CP positioning and movement. Section VI discusses liaison operations.

SECTION I – THE FA BATTALION COMMAND POST

2-01. C2 of a FA battalion is exercised through the establishment of a battalion CP and two to four operations centers. The TOC and the ALOC may both be part of the CP when all or most HQ and CSS elements are consolidated in one location. If the battalion establishes the trains separately, the ALOC will locate with the trains. If the battalion establishes dual trains, it may also establish a BSOC to control the field trains while the ALOC controls the combat trains. The ALOC and BSOC are discussed further in Chapter 7. The battalion may also form a tactical action center (TAC) to place C2 forward during high intensity, fast moving operations. The TAC would concentrate on the current battle, performing critical operations, FD, and intelligence tasks, while the TOC performed non-critical current tasks and planning and coordination functions. The TAC requires a vehicle that can keep up with the supported maneuver unit, two robust FATDS C2 systems (AFATDS or IFSAS) for operations and FD, and communications equipment noted in Chapter 3.

2-02. The primary C2 facility is the battalion CP. It is normally located where the battalion can best command and control all assets and influence FA and other FS systems in support of force operations. With the fielding of increasingly capable digital C2 systems, the battalion can establish limited CP operations at various locations, e.g., on the move operating out of one or two vehicles, at the unit trains, or at a FSE. Limited CP operations may consist of a temporary jump TOC (JTOC) used to facilitate movement of the TOC to a new location. Use of the JTOC is discussed further in Section V.

2-03. The battalion will also designate an alternate CP, which will assume control of battalion operations in the event the main CP becomes inoperable or loses communications. The alternate CP may be another FA battalion CP (especially likely with reinforced/reinforcing units), a firing battery, the brigade FSE, or the ALOC.

CP COMPOSITION

2-04. The make-up of the battalion CP will vary with the situation and the commander's concept of operations. Most of the elements that comprise the CP are in the headquarters, headquarters and service battery (HHSB) or in headquarters, headquarters battery (HHB) and service battery (SB). The CP may include elements from each primary staff section. However, it frequently is a small, operations oriented facility containing the following elements:

- Battalion command element.
- TOC.
- Communications support.
- Survey elements.

BATTALION COMMAND ELEMENT

2-05. The battalion command element consists of the battalion commander, assisted by the CSM, the XO, and their drivers. When they are in the CP, they frequently work out of the TOC where they can best monitor and control the battalion's operations. They may also have their own tent for personal use and as a place to work or conduct meetings away from the TOC.

2-06. The members of the command element are often away from the CP observing, directing, or otherwise influencing the action at critical places on the battlefield. The FA battalion commander positions himself where he can best fulfill all of his command responsibilities. This may be in the FA battalion CP, a trains location, a firing battery, or a key traffic or observation point. A DS battalion commander, as the FSCOORD, may at times be in the supported maneuver unit's HQ, a FSE, or with the supported maneuver commander at a critical location on the battlefield. A R FA battalion commander may position himself in the DS battalion CP, the maneuver brigade CP, or the R FA battalion CP. Commanders of GS/GSR battalions will locate based on guidance from the higher or force FA commander.

2-07. The battalion XO, CSM, S3 and, in divisional units, the brigade FSO provide critical C2 support which allows the battalion commander the flexibility to position himself wherever the situation dictates. In units equipped with the AFATDS, the FA battalion commander may have an automated C2 system in his vehicle that allows him to monitor digital traffic and aid in C2 of the battalion while he operates away from the CP.

2-08. The battalion XO may operate out of the ALOC instead of the CP, especially when focusing his efforts on the battalion's CSS operations. During periods of major planning actions, or when the commander and/or S3 may be out of the CP for extended periods, the XO will probably be in the TOC.

TACTICAL OPERATIONS CENTER

2-09. The TOC serves as the FA battalion's primary C2 hub (information management center), assisting the battalion commander in synchronizing FA fires in support of force operations. It is the location in the battalion where the majority of planning, staff coordination, plan execution, receiving/disseminating information, and monitoring of key events occurs. In

order for the FA battalion to accomplish its assigned mission, the TOC (as a minimum) should be able to perform the following critical functions:

- Advise the battalion commander, and as appropriate, key FS personnel, on the FA organization for combat, FA positioning, allocation of ammunition, and FA attack guidance.
- Perform tactical FD – select FA units and ammunition to support fire mission requests in response to the maneuver commander's attack guidance and to ensure the desired effects are achieved.
- Plan FA operations – generate a FASP that outlines the concept of operations and responsibilities for the battalion and describes the FA battalion commander's plan for accomplishing assigned missions and responsibilities. In a DS battalion, the FASP must address the concept of employment and responsibilities of all FA supporting the maneuver force, and is prepared in coordination with the brigade FSE as part of the maneuver OPORD. The operations section, in coordination with the FSCoord and the FSEs, ensures that the FA plan is synchronized with the maneuver force plan.
- Direct and execute current operations - control FA and TA assets that are organic, attached, or reinforcing the battalion. Move and position firing elements and orchestrate the delivery of effective fires in support of force operations.
- Monitor technical FD – provide technical assistance to battery FDCs/platoon operation centers (POCs).
- Maintain situational awareness of the overall combined arms operation to ensure the battalion provides timely, responsive support and rapidly adjusts to the changes encountered.
- Conduct information management operations, receiving, processing, and disseminating critical battlefield information in all formats.
- Plan and direct counterfire operations as directed by force FA HQ as part of force FA counterfire operations, in support of a maneuver force (DS mission), and as necessary for force protection.
- Conduct essential intelligence operations and tasks.
- Perform FA targeting – generally focused on counterfire or targets related to specific battalion missions (such as suppression of enemy air defenses [SEAD]). FA battalions with a DS mission will also be integrally involved in the total targeting process of the supported maneuver force.
- Plan and direct Class V operations in coordination with the S4 and BAO.
- Plan/direct survey operations to support the battalion's FA operations and any assigned external survey support taskings for radars, target area survey requirements, mortars, or TA/intelligence assets.
- Plan, direct, and conduct all communications operations, to include radio, wire, automation management, and signal security.
- Plan and direct NBC defensive operations within the battalion.
- Provide general direction and oversight of administrative and logistics operations in coordination with the ALOC and the batteries.
- Perform MSU operations.

HHSB/HHB COMMANDER & FIRST SERGEANT

2-10. The HHSB/HHB commander and 1SG are responsible for the security and logistical support for all of the elements in the battery. Because elements of the HHSB/HHB are usually dispersed among both the battalion CP and the trains, the HHSB/HHB commander and 1SG must work closely with all staff officers and section leaders to ensure adequate support. Where applicable, the HHSB/HHB leadership team also monitors the status and administrative and logistical requirements of FS or liaison teams.

2-11. In a HHB/SB based battalion, the HHB leadership team can usually devote more attention to the security, support, and movement of the battalion CP as the SB leadership team supervises much of the battalion trains (e.g., the field trains). (Both leadership teams must coordinate their efforts as elements from both batteries may be dispersed between the CP and the trains.) The HHB leadership team may, at times, operate out of the CP with some supply, food service, and battery maintenance assets temporarily moved forward to service the CP. While positioning and movement of the CP are primarily an S3 responsibility, the HHB leadership team can provide assistance in reconnaissance, movement, and occupation.

2-12. Because the HHSB leadership team has a greater sphere of responsibilities, which includes support for the trains, the staff sections must take increased responsibility for the security and support of the CP (S3) and the trains (S1/S4). Also, the HHSB CSS assets normally operate out of the trains. Most support for the CP may be provided on a periodic or as needed basis; however, a maintenance contact team may support the CP on an extended basis if needed. The HHSB leadership team usually operates from the trains area, moving their operations to the CP only when necessary to better coordinate support.

2-13. The increased responsibilities of the HHSB commander and 1SG may increase the need for them to operate independently. At these times, the 1SG may need to use a vehicle from one of the HHSB sections.

CP COMMUNICATIONS SUPPORT

2-14. The S6, the S3, and the HHSB/HHB commander work together to ensure the CP has adequate communications support. This primarily includes assistance in the set up and maintenance of radio, wire, and digital communications/automation equipment and retrans capability. Since the S6 must also support the battalion's other operations centers and batteries, the communications element in the CP may consist of a contact team that travels with and gives priority to CP support. At times, the majority of the S6 section may operate within the CP. If the battalion is supplemented with additional communication assets to support special missions or circumstances, such as theater missile defense (TMD) or SEAD, these may also become part of the CP.

SURVEY ELEMENTS

2-15. The battalion survey sections may base their operations out of the CP in order to allow better C2 by the S3.

SECTION II – TOC ORGANIZATION

TOC ORGANIZATION

2-16. The FA battalion TOC consists of two major functional elements – the operations and intelligence (O&I) element (composed of the operations section and the intelligence section) and the battalion FDC. The O&I element manages both current and future operations and coordinates all aspects of FA support. It also performs the planning and operational functions, such as developing FA plans/orders, conducting “artillerized” IPB, developing artillery targets, tracking the status of subordinate units, and controlling unit movements.

2-17. The FDC performs tactical FD by processing calls for fire, determining the type and amount of ammunition required to achieve the desired effects, and transmitting fire orders to the firing battery FDCs or POCs. The battalion FDC also monitors technical FD within the battalion.

OPERATIONS SECTION

2-18. The responsibilities of the operations section are to:

- Plan/coordinate the positioning of key C2 and CSS elements and firing batteries/platoons supporting current and future operations.
- Plan/coordinate all battalion movements and assist the battery commanders with coordination of movements. This includes assignment of routes and PAs and their clearance through the supported unit.
- Maintain current operational status of all organic, attached, and reinforcing/reinforced units.
- Prepare and disseminate all operational reports.
- Maintain the friendly situational awareness and common operational picture.
 - Maintain the operations maps – manual and automated.
 - Maintain manual status charts, logs, reports, and equivalent automated databases and reports.
- Provide the FDC with the most updated operational data on battery and platoon positions, both current and planned. When applicable, ensure FSEs and/or reinforced/reinforcing FA units are receiving all necessary current and planned operational data.
- Coordinate survey requirements for the zone of responsibility with the force FA survey planning and control element (SPCE).
- Advise the FDC, FSE (if applicable), reinforcing/reinforced FA (as appropriate), and force FA HQ on scheduling of all preplanned fires.
- Prepare and disseminate the FASP. As appropriate, assist FSEs with development of the FSP (DS mission) and coordinate preparation of the FASP as part of the FSP.
- Monitor ammunition consumption and direct resupply for the battalion.
- Coordinate liaison with a reinforced FA unit and direct the efforts of liaison personnel provided to the reinforced unit.

- Inform other staff sections (S1, S4, combat trains and field trains) of the current status of the supported forces and any changes that will require changes in FA support.
- Supervise battalion NBC defensive operations.
- Plan, coordinate, and supervise OPSEC within the battalion. Coordinate OPSEC with the S2 and S6.
- Assume control of reinforcing/reinforced artillery battalions during MSU operations, if necessary.
- Coordinate communications requirements for the battalion.

INTELLIGENCE SECTION

2-19. The intelligence section is an integral part of the O&I section. The intelligence section provides the commander and S3 with intelligence information essential to the operation and survival of the battalion. Specific responsibilities of the intelligence section are:

- Prepare in-depth “artillerized” IPB products of the supported unit sector in coordination with the supported maneuver and/or higher FA HQ S2. The FA battalion IPB is not an independent product. It is an extension of the supported maneuver unit and/or higher FA HQ IPB, focused on specific artillery-related intelligence requirements. IPB production is a continuous process.
- Assist the S3 in PA selection to ensure that positions are in consonance with IPB insights and survivability requirements.
- Develop the TA tab to the FASP and the RDO for organic and attached radars. The RDO designates positions and establishes cueing procedures. Coordinate the use of all TA radars, organic, or attached, with the battalion S3. (For more detailed information see FM 6-121, *Tactics, Techniques, and Procedures for Field Artillery Target Acquisition*.)
- Develop targeting data based on the supported maneuver commander's high-payoff target list (HPTL), attack guidance matrix (AGM) and force FA HQ direction. Provide recommendations and input to the targeting team that develops the HPTL and AGM for the maneuver commander and/or the force FA HQ. (For detailed information on the targeting process, see FM 6-20-10, *Tactics, Techniques, and Procedures for The Targeting Process*.)
- Monitor enemy artillery tactics and techniques within the supported unit sector and report to higher HQ.
- Exchange combat information and intelligence with the supported maneuver unit, subordinate units, reinforcing/reinforced units, higher HQ, and adjacent units as appropriate.
- Coordinate with battery 1SGs to develop a ground and air defense plan for the battalion.
- Assist the S3 with planning, coordination, and conduct of OPSEC.
- Coordinate external battalion security requirements.

FIRE DIRECTION CENTER

2-20. The battalion FDC provides tactical fire planning and fire control through automated command and control systems with manual backup and communications equipment. Specific responsibilities are as follows:

- Monitor and operate in the battalion FD and FS coordination nets (voice and data).
- Schedule fire units for preplanned fires in coordination with the S3, brigade FSO (if applicable), reinforcing/reinforced FA (as appropriate), and force FA HQ.
- Review the maneuver commander's attack guidance and/or force FA HQ directives and ensure they are applied to all fire mission requests. Ensure all battalion elements have the proper guidances and attack criteria entered into digital systems for both current and planned operations. Where applicable, this includes all FSEs and requires close coordination with the brigade/regimental FSE.
- Execute preplanned fires as requested by force FA HQ, FSEs, observers, and reinforced units.
- Coordinate fire mission processing procedures (data and voice) with FSEs, force FA HQ, reinforced/reinforcing units, and targeting/intelligence assets as appropriate. This includes digital fire mission routing and AFATDS intervention rules.
- Respond to immediate fire requests in the priority established by the supported maneuver commander's attack criteria.
- Ensure the battalion meets the five requirements for accurate predicted fires:
 - Accurate target location and size.
 - Accurate firing unit locations.
 - Updated weapon and ammunition information.
 - Valid met information.
 - Accurate computational procedures.
- Determine registration requirements in coordination with the S3.
- Provide technical FD assistance to battery/platoon FDCs as required. Coordinate for technical FD in case of catastrophic loss of the technical FD capability of battery/platoon FDCs.
- Ensure that all fire missions comply with current FSCMs.
- Assist the S3 in monitoring ammunition expenditures. In cannon units this includes ammunition lot management. Recommend changes to attack criteria or other tactical FD guidances as necessary.
- Conduct MSU operations as required.
- Establish and practice standard procedures for FDC operations in a degraded mode.

TOC BATTLE STAFF ORGANIZATION

2-21. The activities of the TOC are supervised by the S3. For the S3 to manage the FA battle, the entire TOC must work as an orchestrated team under his direction. Usually, the S3 is not given a specific shift of duty

because he is expected to be directing operations during critical times. Table 2-1 depicts a sample 24-hour TOC schedule of key personnel.

Table 2-1. Sample 24-Hour TOC Operations

| DUTY POSITION | FIRST SHIFT | SECOND SHIFT |
|--|----------------------|---|
| Operations/Duty Officer | S3 | Assistant S3 |
| Chemical Officer | NBC NCO | Chemical Officer |
| Operations NCO | Master Gunner | Operations SGT |
| Operations AFATDS Operator | Ops FATDS Specialist | Ops FATDS Specialist |
| Intelligence AFATDS Operator | Intelligence Analyst | Intel FATDS Specialist |
| Intelligence/Targeting Officer | S2 | Intelligence Sergeant or Targeting Officer ¹ |
| FDO | FDO | Ch Fire Control SGT |
| FDC AFATDS Operator | Fire Control SGT | FDC FATDS Specialist |
| CESO | S6 | Signal Spt Sys Ch |
| ¹ – In FA battalions with a DS mission the targeting officer will usually operate in the supported maneuver brigade or regiment FSE. Ops = operations, Intel = intelligence, Ch = chief, Spt = support, Sys = system | | |

2-22. The S3 positions himself in the TOC where he can see and hear critical information that will allow him to make sound tactical decisions based on the FA commander's guidance. In the event the S3 is not in the TOC, the assistant S3 or shift officer assumes the S3's responsibility of managing TOC operations.

2-23. Each section should maintain a shift log, documenting the major events, actions, and message traffic applicable to the section, as well as accomplishment of major shift responsibilities. The log serves as a record of the major events and as a tool to prepare for shift briefings.

2-24. Shifts should overlap by about an hour to allow proper handover of the battle. Also, shift changeover for each section may be staggered to improve continuity (e.g., operations at 1200, intelligence at 1400, and FDC at 1600). There should be, by TSOP, an established procedure where, approximately an hour before shift change, all maps, status boards, shift logs, and such are updated with the most current information, all filing and document destruction is accomplished, and general TOC housekeeping completed. Both manual and automated systems must be addressed. The oncoming shift should be given time to review maps, status boards, shift logs, and other applicable tools. The outgoing shift should provide a shift briefing that addresses, as a minimum, current operational status (FA and maneuver), TOC status (vehicles and equipment), and battalion, TOC, and section tasks. The S3, or section leaders, may establish a standard TSOP format for the shift change briefing.

SECTION III – TOC CONFIGURATIONS

2-25. The following figures provide examples of TOC configurations (external array and common area). They are provided only as examples and for use as guides to stimulate ideas for development of a functional TOC tailored to meet the needs of the unit.

2-26. The examples provided are for towed (T) cannon (Figure 2-1), SP cannon (Figure 2-2) and MLRS (Figure 2-3) battalion TOCs. However, any battalion can use any of the basic layouts (back-to-back, side-by-side) as a general guide in organizing a TOC. Figure 2-3 provides a more detailed example of the internal layout within a TOC to include the placement of C2 systems. The digital equipment shown in the figure can also be removed from the vehicles and set up in the track extensions when mobility and rapid displacement are not required. (Note – C2V is used generically for C2 vehicle)

TOWED CANNON BATTALION TOC LAYOUT (EXAMPLE)

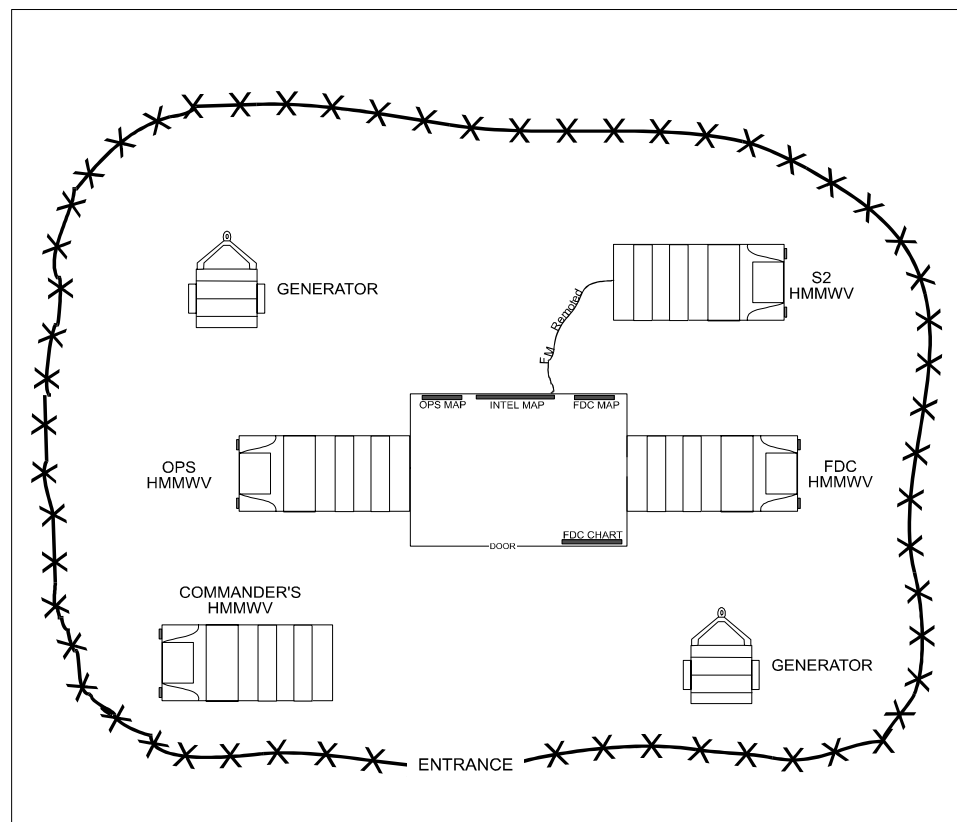


Figure 2-1. 105mm/155mm (T) Cannon Battalion TOC Array

SP CANNON BATTALION TOC LAYOUT (EXAMPLE)

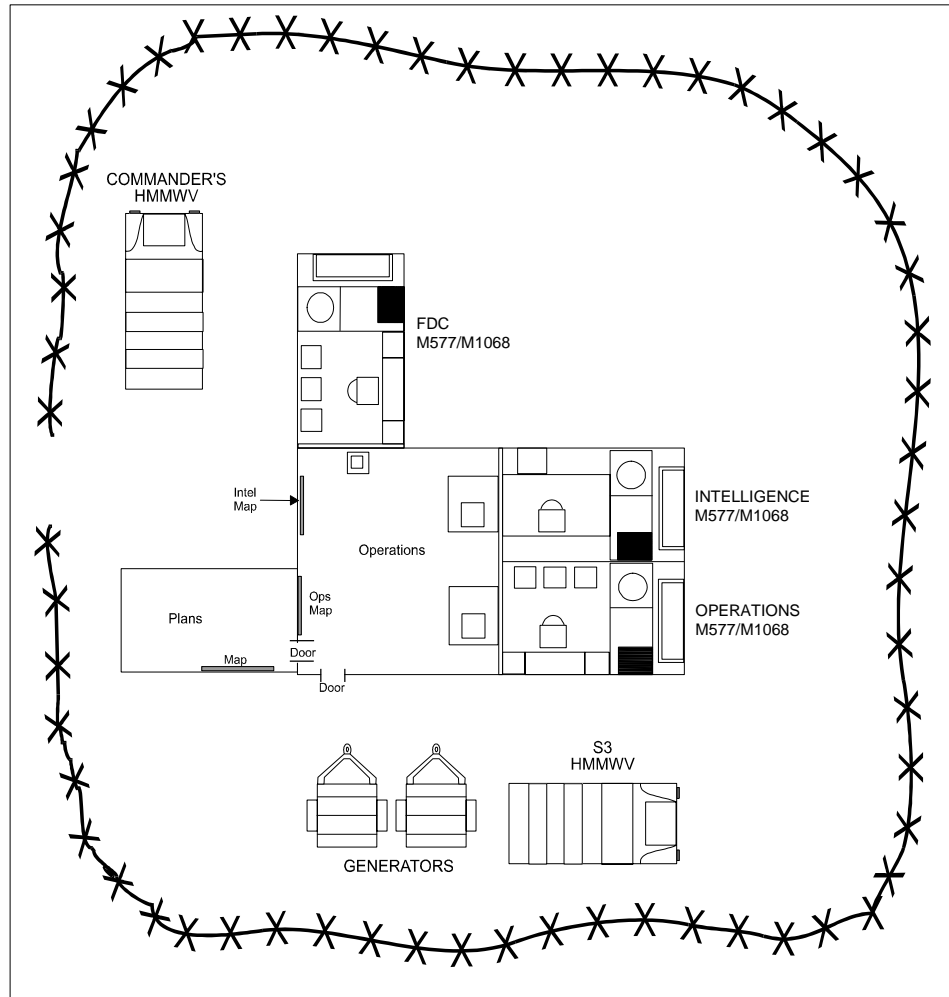


Figure 2-2. 155mm (SP) Cannon Battalion TOC Array

MLRS BATTALION TOC LAYOUT (EXAMPLE)

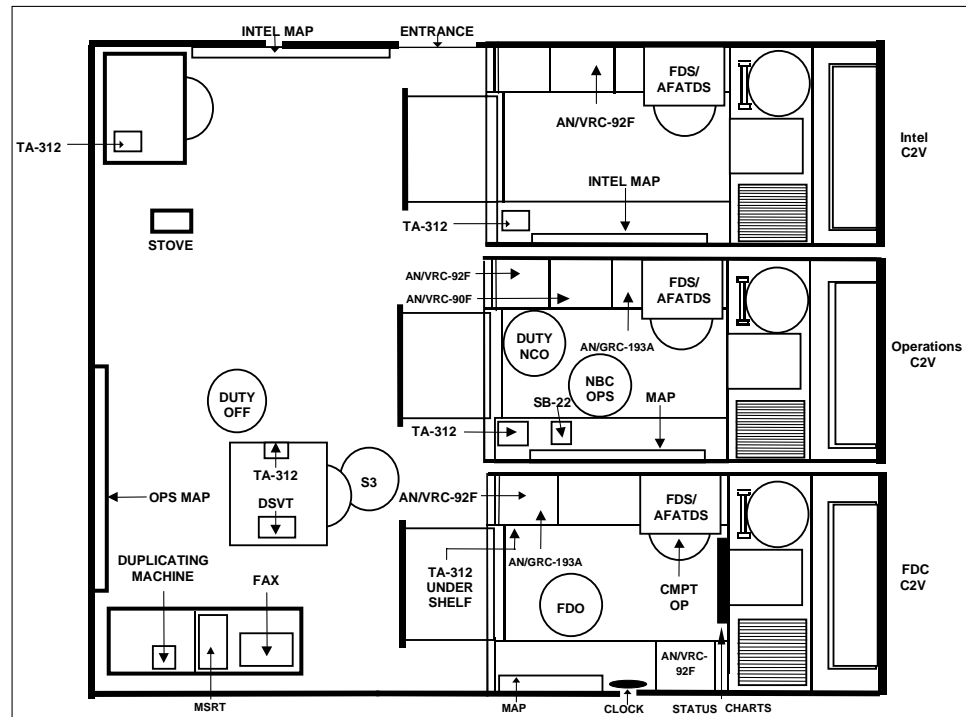


Figure 2-3. MLRS Battalion TOC – Side-by-Side Configuration

TOC EQUIPMENT

2-27. The following items are recommended (but not limited to) for use in the TOC common areas (extensions) to enhance mission execution:

- Tables/desks/chairs/clock/heaters (as required).
- TA-1035 telephones/remoted mobile subscriber radio telephone (MSRT).
- TA-312 telephones. Remotes for combat net radios (CNRs).
- Reproduction equipment and facsimile (fax) machine.
- Weapon and load bearing equipment (LBE) racks.
- Plans, intelligence, and operations map boards.
- Storage bins for overlays and maps.
- Status boards for tracking combat information.

2-28. The common area is the primary workspace for the key TOC members. During frequent or anticipated movement, much equipment will remain uploaded, with much work occurring inside the vehicles. If the TOC will remain in place for an extended time, most of the equipment can be moved or remoted to the common area. Space is a limitation and tentage may be needed to provide additional workspace. TOC leaders must consider weather, as some of the equipment may be sensitive to extreme temperature, humidity, dirt and dust, or other factors. As the common area is also more vulnerable to shrapnel and small-arms fire, the S3 should consider force protection measures in determining TOC setup.

SECTION IV – TOC INFORMATION MANAGEMENT

2-29. The process of C2 in the FA battalion is unique. Unlike the C2 structures of maneuver forces where the commander directs the forces commander-to-commander, the FA battalion S3 controls unit movements and executes artillery fires based on the FA battalion commander's guidance. The battalion commander still commands the battalion, but the S3 is the manager of FA assets and translates the vision of the commander into FA fires.

MANAGEMENT OF TACTICAL INFORMATION

2-30. The battalion S3 and the rest of the TOC staff control the day-to-day operations of the FA battalion. It is at the TOC where battlefield information is received and processed into FA tactical movement, delivery of FA fires, and sustainment operations. For the battalion staff to effectively track the tactical situation and satisfy the maneuver commander's concept of FA fires, situational awareness and battle tracking must be as accurate as possible. The physical layout of the TOC should support the flow of information and allow the S3 to direct the efforts of the staff in an efficient manner.

2-31. The S3 should position himself in the TOC where he can effectively manage his battle staff. He should be at a vantage point where he has access to radios and telephones and can observe the monitors of the C2 computers, the operations/intelligence maps, and other status charts. He can take in tactical information, give guidance, and avoid the common pitfall of becoming preoccupied with tasks better handled by subordinates.

2-32. The primary information pipelines in the TOC are its internal and external voice and digital nets. (See Chapter 3, for TOC net structures.) Normally, in a DS battalion, the two nets that give the S3 the clearest picture of current events on the battlefield are the maneuver brigade FS coordination and the maneuver command nets (voice). It is important to understand that the FA staff monitors these nets and does not normally transmit on them. To reduce confusion in the TOC, it is recommended these two nets be the only ones audible on remote devices in the operations (extension) area. The other voice nets should be monitored by headset or monitored from inside the appropriate staff vehicles. The S3 is kept informed of the majority of the traffic on the other nets (voice and data) by status charts updates, reviewing message forms, and computer printouts. Anything of significance that requires the S3's attention should be brought to him immediately. In a battalion providing reinforcing or GS fires, the communications requirements will differ, but the S3 will still focus on the nets that will provide him the tactical information to make sound, logical decisions.

2-33. The battalion FD nets, operations/fire net, and maneuver FS coordination net are the S3's principal conduits to understand where fires are planned and executed. These nets allow the TOC to execute its responsibility to review every mission and provide a secondary independent check to verify that no FSCMs are being violated and to reduce the chances of fratricide. Data and voice missions should be checked. The S3 observes where targets are in relation to the tactical situation to better understand the flow of the battle.

2-34. The O&I section must closely monitor the information received from all tactical information sources (voice, digital, fax) to verify critical data, identify potentially inaccurate information, and to resolve discrepancies between conflicting reports or data.

2-35. By monitoring the supported maneuver command net, the S3 can determine the tempo of the operation, anticipate where the focus of fires will be directed by the FSCOORD, and maintain the situation map(s). This allows the S3 to be proactive in positioning units and managing ammunition for effective tactical control of fires. If used, the net should be remoted to the S3's battle station.

2-36. The TOC passes tactical orders and information to the batteries and any supporting artillery over the battalion command net. This net can be remoted to the operations sergeant's post and monitored by a radio telephone operator with headset. The S3 receives the information passed on this net by monitoring the computer screens and status boards and by reviewing messages and reports used to update situation maps. Situation reports and updates of information with battalion combat and field trains should not be passed on this net. Routine administrative and logistical traffic should be sent on the battalion administrative/logistics net or mobile subscriber equipment (MSE) network.

2-37. The S2 monitors the supported maneuver O&I net. The focus of the traffic on this net is maneuver specific but the S2 can garner much information relevant to FA support requirements and operational/security considerations. The S2 section should monitor this with either a remote (with headset) or from inside the S2 vehicle. Routine traffic can be passed to the S3 on message forms. Critical traffic requiring the S3's attention may be monitored, from his battle station, on the S2's remote. FA battalions with a GSR/GS mission probably will not monitor this net, but the force FA HQ O&I net instead.

2-38. The DIVARTY/FA brigade command/fire network is the most immediate voice link the FA battalion has to access the force artillery counterfire system, request for additional fires, FS coordination, and C2 of subordinate units (particularly when out of the range of CNRs).

2-39. The MSE system gives the TOC a tremendous capability to coordinate actions and to verify or exchange critical information. It is ideal for routine traffic between the TOC, ALOC, FSEs, BSOC, force FA HQ, and supported force HQ. It is a superb tool for rapid land coordination with force FA HQ, supported brigade or battalion task forces for areas to move and position supporting FA units and assets.

2-40. On today's battlefield, an increasing amount of tactical information flows over the FA battalion's automated C2 equipment. The TOC constantly interfaces digitally with other units' primary C2 systems and with other digital devices/systems that generate, receive, or forward information. Automated battle management is a developing skill as system capabilities and unit tactics and techniques are rapidly evolving.

INFORMATION MANAGEMENT TOOLS

2-41. The capability of a TOC to function effectively is based on the staff's ability to manage information. This is not a simple task when considering the volume of traffic that is passed and captured in the TOC's battle command system (AFATDS, IFSAS, FDS, or LTACFIRE) and associated/stand-alone communications systems. It is very easy for units to experience information overload unless they have simple and effective methods in place to process information.

2-42. In the TOC, the staff may use graphical displays (e.g., map boards with overlays, status boards, and/or digital screens) to give the FA commander a complete situation report of the status of his unit, the supported maneuver unit, and/or the reinforcing/reinforced FA units. The displays should be informative enough to assist him in making tactical and administrative decisions, as well as aid in managing his FA assets. This will only happen if the staff has an effective system in place to visually display critical data.

AUTOMATED C2 EQUIPMENT

2-43. The S3 and all TOC officers and NCOs should understand the capabilities and limitations of their automated C2 equipment. They should understand what screen views are available and how those views can be changed to display desired data and to filter out undesired information that can clutter the screens. TOC leaders must quickly recognize bad or suspect data on the screens or automated reports as this data can be rapidly disseminated to numerous external and internal users.

2-44. Operators should be thoroughly trained in all aspects of the C2 systems they use. They should know how to enter, extract, and manipulate data, change screen views, and prepare/pull reports. They should also understand the significance of the data they are handling. This includes identifying critical graphics (such as a contaminated area), reports, and messages that must be brought to a leader's attention immediately. They should understand when to alert leaders to changes in key data such as ammunition levels. Leaders should ensure that C2 equipment operators are not merely keyboard operators but critical members of the warfighting team.

2-45. The TOC should have established procedures to maintain a manual backup capability. The TOC will quickly need accurate maps, overlays, charts, printed computer reports, and other manual records if automated systems fail. During peak periods, TOC leaders should monitor how well both automated and manual information tools are being maintained. They must ensure TOC personnel back up, print out, and post or record digital data so the TOC can immediately execute manual operations if necessary. TOC training should include drills in switching to degraded operations (in which one or more automated systems malfunction) and to a totally manual information management system in case of major automation failure.

MAP BOARDS

2-46. Standardized map boards should be established in accordance with force FA HQ and/or supported unit TSOP. This will facilitate standard map

mounting procedures throughout the organization and allow overlays to be exchanged with minimum loss of accuracy.

OVERLAYS

2-47. Acetate overlays are constructed to conform to standardized map boards. All overlays should be the same size and edged with tape. The goal is to display graphics on an overlay, mount the overlay on various map boards, and maintain an acceptable degree of accuracy.

2-48. Units should establish a standard (TSOP) mounting and posting system for overlays. When an overlay is placed on a map board, the following information should be visible:

- Overlay description.
- OPORD, FASP, fragmentary order (FRAGO), number if applicable.
- Unit originating the overlay.
- Date-time group.
- Security classification (top and bottom).
- Grid-line tick marks for orientation (minimum of two).

STATUS BOARDS

2-49. The staff should track the current status of elements and other combat information on status boards (containing appropriate charts) that are neat and organized. Much of this information may exist in various automated formats in AFATDS or other C2 software. This information is automatically updated as the new information is input by TOC personnel or is digitally received from other elements. Manual status boards and information folders should be compared to the automated information formats/sources to facilitate maintenance and emergency transition to manual operations. However, the manual status boards should be designed to best organize/display required data in a TOC setting.

2-50. The TOC may position and maintain status boards along functional lines. For example, the S2's status board may contain a RDO, air defense status, survey section equipment status, MOPP level, or battalion defense diagram. The operations section status board(s) may contain all the call signs and frequencies, track combat strength and ammunition, FSCMs, observer locations, the FASM, or FS execution matrix (FSEM).

2-51. Within the TOC, the minimum information to be tracked includes:

- CCIR.
- Commander's intent (Immediate and two above).
- Missions two levels up and the battalion mission statement.
- The maneuver commander's concept of FS.
- EFSTs and EFATs.
- FASM/FSEM.
- Batteries'/platoons' primary, alternate, and supplementary locations.
- Howitzer/launcher status (crew and weapon system) and posture.
- Ammunition carrier strength.
- FS team-vehicle (FIST-V) status.

- FDC/POC status – to include personnel strength and status of automated FD systems.
- Ammunition count by type and platoon.
- Radar positions, zones (active and planned), and cueing schedule.
- Order planning timeline.
- NBC status.
- Priority of fires and current FSCMs.
- Call signs and frequencies.
- Air defense artillery (ADA) status.
- Personnel status.
- Task organization/FA organization for combat.
- Radiation exposure status.
- AGM and HPTL.
- Risk assessment.
- Friendly mortar locations.
- Main supply routes.
- Immediate-actions status.

SITUATION MAPS

2-52. There are normally three situation maps mounted on map boards in the TOC. They are plans, intelligence, and operations maps. Each has functions that may overlap. The plans map is used during the planning process and for future operations. The intelligence map is primarily used for IPB process, FA targeting, and current enemy situation. The operations map is the most widely used in the TOC to maintain the current friendly situation. The intelligence and operations maps should always complement each other.

2-53. The operations map should contain overlays depicting the current location of friendly maneuver forces, FISTs, FA units (and range fans), radars under battalion control, proposed PAs, FSCMs, and current fire plan(s).

2-54. Situation maps should be kept simple and manageable. Tactical information should be displayed on one of the following type overlays:

- Maneuver graphics overlay.
- FA position/movement overlay.
- The target overlay.

Maneuver Graphics Overlay

2-55. The supported maneuver TOC produces this overlay, which depicts the supported maneuver AO, objectives, battle positions, locations of boundaries, phase lines, other maneuver control measures, and airspace coordination graphics. Normally, the brigade FSO coordinates for a copy for the DS battalion TOC. The S3 uses this overlay in planning movements and clearing fires. As a minimum, the TOC disseminates copies to the firing batteries, survey section, organic/attached radars, combat and field trains, and R/GSR artillery TOC. The force FA HQ should provide graphics to GS battalions. Additionally, the brigade FSO will input the geometry into the automated

tactical fire control system (for GS battalion, the DIVARTY, Corps Arty, or the FA brigade fire control element [FCE] provides the geometry).

2-56. Because it constitutes the frame of reference, the maneuver graphics overlay is the first overlay placed on the situation map boards during execution. On the operations map, the S3 uses it as a check to preclude fratricide and to gage the tempo of the battle in regard to the maneuver plan.

FA Position Area Overlay

2-57. The FA PA overlay is used for planning PAs for firing batteries, trains, the TOC, radar, reinforcing artillery units, and other force FA assets. It depicts all FA unit positions and range fans. Planning PAs is a continuous process that involves the close coordination between the DS TOC and the brigade TOC (for GSR/GS units, coordination is made with the DIVARTY or FA brigade TOC). The assistant S3, with help from the S2, normally prepares the overlay. PAs should be clearly identifiable on the overlay. Coordination is made with the brigade TOC, through the brigade FSO, for land clearance (also, force FA HQ is queried for position requirements for any GSR/GS assets). Copies of the overlay are distributed to the brigade FSO, firing batteries, organic/attached radar, combat and field trains, reinforcing artillery, and to the force FA HQ.

Target Overlay

2-58. As a planning tool, it supplements the target list worksheet or computer printout by graphically depicting all targets and the total fire plan for an operation. It is used in developing the PA overlay for ensuring batteries can be positioned to range targets. This is the top overlay on the situation map. Since the overlay supplements the printed target list and is subject to constant changes, it is not normally reproduced as part of any plan. The degree of precision needed for delivery of fires discourages its use for anything other than a tool for planning and graphic aid in execution.

2-59. As targets are fired, they should be colored red in accordance with FM 6-40. This graphically shows the S3 where fires are focused and assists him in anticipating future requirements.

Additional Overlays

2-60. There are other overlays that can be used to assist the S3 and TOC personnel in planning and executing the FASP. Most are only needed in special situations. The S3 decides the order in which they appear on the situation map. Some of these overlays may include:

- Obstacle overlay -- In addition to showing the location of planned and fired scatterable mines (SCATMINE) minefields, this overlay shows the location of existing and planned engineer obstacles. The S3 may use this overlay in planning PAs for firing preplanned SCATMINE, unit movements to avoid obstacles/choke points and establishing radar sensor zones to help protect forces. The S2 maintains this overlay.

- Event template with critical event matrix -- This overlay is developed by the S2 in the IPB process. It illustrates a timed-phased analysis of the enemy's course of action (COA). The event template is an overlay that may contain named areas of interest (NAIs), targeted areas of interest (TAIs), enemy timeline and order of battle, and DST or enemy critical events matrix. The overlay aids the FA staff in planning unit movements while providing continuous fires, ensuring the FASP will support maneuver operations and when used in conjunction with the FSEM, it assists in fine-tuning FA assets synchronization.
- NBC -- This overlay has two functions. The first is to show areas of NBC contamination in the AO. The second is to show the location of decontamination sites and routes to each. The overlay is generated and maintained by the battalion chemical officer/NCO.
- Communications capability -- If the terrain presents any unique communications profile limitations, the S6 would construct a site profile of the terrain in the AO. This assists the S3 in planning employment of retrans stations, displacement of units, and TOC site selection.
- Radar capability -- Radar capability overlays depict the locations/coverage of organic, attached or GS Firefinder radars. It is used to display all confirmed targets located by the radar(s) and control measures in the current zone of operations. This overlay is maintained by the S2.
- Logistics -- This overlay is generated by the S4 under the supervision of the battalion XO. It depicts all pertinent logistics facilities such as main supply routes, alternate supply routes, maintenance collection points, mortuary affairs collection points, and ATPs. The S1 and S4 representatives at both the combat and field trains maintain the logistics overlay. A copy is furnished to the TOC.

DIGITAL MAPS

2-61. Digital maps are increasingly valuable tools as C2 software versions are upgraded. AFATDS map controls allow the user considerable leeway in modifying the view and the data displayed. The S3, S2, and FDO should understand the map display capabilities of their AFATDS software and determine how to best set up and coordinate digital map displays within the TOC to maximize efficient use of the systems available. Different views may be needed for different situations. All AFATDS operators should be able to quickly display a digital map in the format needed. AFATDS training drills should include rehearsals in generating the map displays required by TOC leaders.

SECTION V – CP POSITIONING AND MOVEMENT

2-62. Movement and positioning of the battalion CP are controlled by the S3 based on the guidance and direction of the commander. The S3 is assisted by the S2, who provides mobility information concerning terrain, trafficability of roads, obstacles, minefields, and contaminated areas, and survivability information regarding ground, air, and NBC threat from enemy forces and information about the civilian populace in the area. The S6 provides guidance on communications factors. The HHSB/HHB leadership team and other members of the TOC may also assist with reconnaissance, security, and advance party operations. Clearance for the positions and movement routes must be coordinated with the maneuver force, a function that the FSEs assist with, especially in battalions with a DS/R mission.

CP POSITIONING CONSIDERATIONS

2-63. The S3 uses the IPB products in determining positions. The S3 usually plans primary, alternate, and possibly supplementary CP positions (see Chapter 6 for further discussion of these terms). The primary consideration for positioning the CP is its ability to accomplish its mission. He must also consider whether or not the CP will be collocated with other elements, such as the battalion trains or a supported maneuver unit CP. Several other factors must also be considered:

- The general movement of the forward line of own troops (FLOT), which may be forward, rearward, static, or erratic. In a sustained, rapidly advancing offensive operation, the CP may need to be positioned as far forward as feasible. During a rapidly withdrawing retrograde, the CP may be placed farther to the rear than normal. On a non-linear battlefield, the general ebb and flow of the fight and the disposition of forces is still a consideration, however, security considerations are increased as the situation maybe be less predictable than on a linear battlefield.
- Nature of the threat.
 - Counterfire threat. In response to a high counterfire threat the CP may be placed farther to the rear; outside the range of mortars and as many of the enemy's artillery systems as feasibly possible. Defilade/reverse slope positioning may provide increased protection, however, retrans of communications may be necessary.
 - Air/space threat. High air threat may place increased need for positioning the CP in heavily wooded or urban terrain that allows better camouflage. The CP may also be placed close to ADA that can provide coverage and away from anticipated or identified enemy air corridors. The use of wooded/urban terrain, coupled with camouflage and light discipline, are also critical to reducing vulnerability to air and satellite imagery.

- Ground threat. Consider positioning the CP with or near other friendly elements when there is a high risk from enemy penetrating forces or small force operations. When there is a threat of rapid penetration from an enemy attack or counterattack, position the CP off of the expected axis of advance, especially any high-speed avenues of approach, if possible. Increase the size of the CP by adding CSS elements or arranging infantry or military police (MP) support.
- Electronic warfare (EW) threat. To overcome jamming, position the CP closer to firing batteries or the retrans site. To reduce electronic locating vulnerability, position the CP in defilade/masked locations and use retrans. Also position the CP away from the maneuver CP and the FA trains to reduce the threat to them and to reduce the electronic signature. The CP should be kept small to present the smallest electronic signature.
- Communications factors such as digital and radio communication ranges and retrans capability must be considered. Communications is a function of the distances between units, the capabilities of the equipment, atmospheric conditions, and terrain.
- Terrain.
 - If canalizing terrain to the rear limits movement options, and the CP could be quickly cut off, consider positioning close to high-speed avenues needed for movement while considering potential exposure to threat penetrations.
 - Terrain that is extremely wet, rocky, or steep, and urban terrain may interfere with weapon platforms, grounding of equipment, tiedowns for extensions and shelters, and preparation of defensive positions.
 - Hilly or mountainous terrain provides survivability advantages, but may also interfere with communications for the CP.
- Friendly forces and missions.
 - When extensive coordination with the maneuver HQ is critical a DS battalion may position its CP close to the maneuver CP.
 - In a DS/R relationship, the CPs of the two FA battalions may be positioned laterally or in depth, depending on the deployment of the batteries and the concept for FS (in addition to the normal positioning considerations. C2 and survivability are critical considerations for DS and R units due to their generally closer proximity to the FLOT.
 - The CP of a GS/GSR unit is positioned to allow communication with the force FA HQ, its own elements, and when applicable, the reinforced unit. Communications, especially for corps FA units, is a critical consideration as GS/GSR units frequently communicate at more extended ranges than DS and R battalions.

JUMP TOC CONSIDERATIONS

2-64. To facilitate CONOPS during movement of the CP to a new location, the battalion may use a JTOC. This is a variation of movement by echelon in which a small portion of the TOC, and minimal security and support elements, will move to the new CP location in advance of the remainder of the CP. During the JTOC's movement, tactical fire control is maintained at the

CP/TOC (-), which also begins preparation for movement. Once the JTOC is in place it conducts a CONOPS exchange with the TOC (-) and establishes communications with subordinate, higher, and supported units before it assumes control of the battalion. The remainder of the CP then march orders and moves to the new CP location. Normal operations resume once the CP has been fully established.

2-65. Composition of the JTOC is limited to key equipment/personnel. As an example, a JTOC may consist of (but is not limited to) the following: high-mobility multipurpose wheeled vehicle (HMMWV), operations vehicle with extension, current status boards and situation maps, S2 or S3, assistant S3, TOC NCO, FDO/FDC NCO, S2 NCO, selected O&I and FDC personnel and other HHB or HHSB elements to provide support and security. However, the JTOC also could consist of about half of the CP. The size and composition of the JTOC will depend on the tactical situation and the S3's major concerns. A smaller JTOC may be preferred during periods of rapid advancement and frequent moves, while a larger JTOC would be desired if security is a major issue, and speed of movement is not critical. During a rapidly advancing offensive operation, the JTOC may be moving again shortly after the rest of the CP has closed and assumed control of the battalion.

2-66. The unit can use a version of the JTOC technique, basically a reversed sequence, during defensive operations when the battalion must move to the rear or laterally away from a penetration. The bulk of the CP would move first, while the JTOC remains in place controlling the battalion until a new CP is established. This allows C2 to remain close to the fight, while retaining the mobility to quickly move out at the last possible moment.

2-67. The battalion can also form a TAC to put the battalion commander and/or S3 closer to the action, near the maneuver commander, his CP, or a FSE. It is especially used during operations requiring frequent, fast moves where the main TOC would have trouble keeping pace with the supported maneuver unit. It would be the focal point for battalion C2 of the current fight, emphasizing operations, FD, and limited TA/intelligence functions. The main TOC would follow as possible and monitor the situation, prepared to assume control if necessary. It continues to conduct planning and other TOC functions in order to allow the TAC to concentrate on the current fight during a critical stage in the battle. The TAC will consist of only one or two vehicles that have the speed and maneuverability to keep up with the maneuver forces. It should have a more robust communications and FATDS capability than a JTOC as it may operate separate from the TOC for a longer period and must be fully capable of controlling the battalion's fires and directing all subordinate elements. The TAC technique is also useful when the commander wants to send a TOC element forward with a battery artillery raid.

CP MOVEMENT TECHNIQUES

2-68. CP movement is influenced by several factors: security, organization for combat, personnel strength, equipment status, availability of mutually supporting battalions, and tactical situation. The TOC may move as a single unit, in two or more echelons, or in several small elements. A major consideration in determining the TOC movement technique is the availability

of a reinforcing, reinforced, or other mutually supporting battalion. If another battalion can temporarily assume the CP's functions, the commander and S3 have more options for moving the CP. Chapter 6 provides further discussion of movement techniques.

NO MUTUALLY SUPPORTING BATTALION

2-69. The CP may move by echelon and may utilize the JTOC concept more frequently when another FA unit is not available to temporarily assume control of the TOC's operations. If the battalion CP must move as a unit, the ALOC, a firing battery, or the brigade FSE (DS units) can assume portions of the C2 functions until the CP is reestablished. Rehearsal and clear TSOPs are needed to prevent confusion.

NO MUTUALLY SUPPORTING BATTALION - CATASTROPHIC LOSS

2-70. If the battalion TOC is not, or will not be operational and a JTOC cannot be established, the battalion commander may shift control to the brigade FSE, a designated battery/platoon operations center, or even force FA HQ. Another option is for the ALOC to assume all C2 functions except tactical and technical fire control, which would be performed by the brigade FSE, a firing battery, or force FA HQ. If this occurs, TOC staff still capable of performing their duties should collocate with and assist the temporary element in controlling the battalion until the TOC is capable of resuming control. Generally, the surviving elements of the CP will move rapidly as a unit to the new location (possibly the ALOC) and begin recovery, reorganization, and reconstitution as appropriate. As soon as possible, the TOC would assume control and normal CP operations would be restored.

MUTUALLY SUPPORTING BATTALION

2-71. When a reinforced, reinforcing, or other mutually supporting battalion is available and CP movements are required, MSU operations may be conducted to transfer tactical control to the other FA battalion TOC. The supported unit should ensure the supporting unit TOC has an updated status on all elements and digital/voice communications are established. Before reassuming control, the supported unit TOC should re-establish CONOPS with the supporting TOC and with all applicable elements.

SECTION VI – LIAISON OPERATIONS

2-72. One of the seven inherent responsibilities of a FA battalion assigned a R or a GSR tactical mission is to provide liaison to the unit being reinforced. However, the battalion commander may also direct liaison be established with another FA unit, a maneuver unit, or any other element when he identifies a need for close, effective coordination with that other unit or element. Liaison may even be necessary with non-military elements.

2-73. Liaison is the contact or intercommunication maintained between elements to ensure mutual understanding and unity of purpose and action. Liaison activities augment the commander's ability to synchronize and focus combat power. Liaison includes establishing and maintaining physical contact and communications. Liaison activities ensure the following:

- Mutual cooperation and understanding between commanders and staffs.
- Coordination on tactical matters to achieve mutual purpose, support, and action.
- Exact and precise understanding of implied or inferred coordination measures to achieve synchronized results.

2-74. Overall, liaison becomes another tool to help commanders overcome friction, gain assurance that supporting and supported commanders understand implicit coordination, and achieve synchronized results. Effective liaison enhances the commander's confidence in planning and in mission execution.

2-75. If the reinforced and reinforcing units are digitized, and both units maintain communications and situational understanding, the actual physical presence of a liaison team at the reinforced unit may not be required. If the two units choose to co-locate CPs or FDCs, the liaison requirement is met and no liaison is required.

2-76. When a corps FA battalion is assigned a tactical mission of GS, it will normally be positioned in the area of operation of a maneuver brigade. The FA battalion commander may consider sending one of his liaison teams to the maneuver brigade FSE. This team can help the battalion commander in tracking the maneuver situation and in keeping the maneuver commander informed of the location and status of a sizable friendly force that is in his area but not under his control.

2-77. When an Army FA battalion supports a US marine air-ground task force (MAGTF), it should establish liaison with the marine force. The marine controlling FA HQ will normally provide reciprocal liaison to the Army FA battalion.

LIAISON ORGANIZATION

2-78. Corps FA battalions have one or more organic liaison sections. Each liaison section consists of an officer, a sergeant, and one enlisted soldier. Equipment usually consists of a wheeled vehicle and a radio (AN/VRC-90F), a

precision lightweight global positioning system (GPS) receiver (PLGR), and an AFATDS or IFSAS.

2-79. Divisional FA battalions do not have organic liaison teams since their requirement for liaison with the supported units is usually satisfied by the FSEs collocated with the maneuver force CPs. However, when divisional battalions are assigned a R or a GSR mission, they must provide for liaison if communications linkup is inadequate. If no means are available to establish full-time liaison, then periodic coordination between units may have to suffice. Additional information on liaison operations is in FM 101-5.

RESPONSIBILITIES

2-80. Both the supporting and the supported unit have responsibilities important to successful liaison. The supporting unit, which dispatches a liaison team, is frequently referred to as the sending unit. The supported unit, which receives the team, is called the receiving unit. The responsibilities of the sending and receiving units, the liaison section, and the LNO and sergeant are discussed below.

THE SENDING (REINFORCING) UNIT

2-81. Sending units are responsible for ensuring that liaison personnel are competent and thoroughly trained. The liaison personnel must:

- Remain up to date on current and future operations, be thoroughly briefed, and understand what information to pass to the receiving unit.
- Remain current with sending unit operations.
- Have the appropriate credentials for authenticating the liaison team to the receiving unit commander. This is especially critical if the team is being provided to an allied force.
- Have appropriate security clearances and courier orders.
- Have reliable transportation, communications, automation, and COMSEC equipment with appropriate codes. The sending unit must plan to replace equipment and COMSEC material, if necessary.
- Provide TSOPs to receiving units that outline liaison team missions, functions, procedures, and duties.
- Inform the receiving unit of the contents of any reports sent to the sending unit.
- Have weapons and ammunition for personal protection.
- Arrive at the receiving unit at the appointed place and time.

THE RECEIVING (REINFORCED) UNIT

2-82. The receiving unit is responsible for the following:

- Notifying the sending unit of the time, place, and point of contact for the liaison team.
- Briefing the arriving liaison team on the status of current operations and about the receiving unit.
- Providing the sending unit operational details, to include movement and logistic information, which impact on sending unit operations.

- Ensuring that liaison teams have access to the commander and key staff officers to communicate information critical to the sending unit.
- Providing communications and COMSEC equipment, if the liaison team operates in the receiving unit's radio nets and telephone system.
- Providing the following administrative support:
 - A copy of the receiving unit's TSOP.
 - Workspace, electrical power for automation equipment, and maintenance support, to include fuels and lubricants.
 - Life support facilities, rations, maps, small-arms ammunition, and Class II and Class IV supplies.
 - Medical support and physical security.

THE LIAISON SECTION

2-83. Specific liaison responsibilities for the section include the following:

- Exchange information on the tactical situation between the reinforcing/reinforced battalion CPs.
- Establish digital and voice communications as required for:
 - Exchanging orders, situation reports, and intelligence reports.
 - Passing fire missions.
 - Using quickfire nets, as required.
 - Passing unit locations, ammunition status, weapon strength, target lists, and fire plans between the two units.
 - Facilitating the rapid clearance of fires.
- Exchanging critical TSOP information.
- Coordinating the exchange of all digital information (communications settings and addresses, unit data, targeting information, technical and tactical fire control, and commander guidances.)

2-84. During the liaison tour, the LNO or team should also:

- Promote cooperation between the sending HQ and the receiving HQ.
- Proactively obtain information.
- Facilitate comprehension of the sending unit commander's intent.
- Help the sending unit's commander assess current and future operations.
- Remain informed of the sending unit's current situation and make that information available to the receiving unit's commander and staff.
- Expeditiously inform the sending unit of upcoming missions, tasks, and orders of the receiving unit.
- Inform the receiving unit's commander of the content of the reports it transmits to the sending unit.
- Keep a record of reports, listing everyone met (including the person's name, rank, duty position, and phone number) as well as primary operators and their phone numbers.

2-85. A checklist is provided on the following pages that may assist the LNO section in its preparations and operations. An example of an outline of an LNO's handbook or TSOP is also provided.

| EXAMPLE LNO CHECKLIST | |
|--|--|
| PREPARATION FOR OPERATIONS | |
| EQUIPMENT | |
| | Personal field gear and equipment |
| | Night vision goggles |
| | GPS receiver |
| | Camouflage screening system |
| | Hex tent/stove/cots/water cans |
| | Fire control system (AFATDS or IFSAS) |
| | Communications Systems: <ul style="list-style-type: none"> - Radios/COMSEC devices - OE254 Antenna - AN/GRA-39 Remote - TA-312 Telephone - DR-8 (w/WD-1A/TT) |
| | TA-1035/U with MX-10891/G field wire |
| | Maps and overlay material |
| | Field table with chairs |
| | Office supplies and materials to include: <ul style="list-style-type: none"> - Pens/pencils/markers - Notepads and tablets - Rubbing alcohol/paper towels - DA Form 1594/fire mission logs |
| INFORMATION | |
| | TSOP/SOI/operations plan (OPLAN)/OPORD of parent unit |
| | TSOP/SOI/OPLAN/OPORD of supported unit |
| | Location and route to supported CP |
| | Intelligence update |
| | Current plans, orders, maps, overlays, and targeting information to include concept of operations, concept of fires, and commander's intent |
| | Unit locations/readiness and strength |
| | Land management coordinating agency (force HQ FSE) |
| | Logistical considerations and supporting agencies |
| | Current status of supported unit's mission |
| | References; field and technical manuals |
| BEFORE DEPARTING THE SENDING UNIT | |
| | Ensure you understand what the commander wants the receiving commander to know |
| | Arrange for a briefing from all staff elements concerning current and future operations |
| | Verify the receipt of and do you understand the tasks your staff has given you |
| | Obtain the correct maps, traces, overlays (including maneuver, engineer, and FS) |

Figure 2-4. Example LNO Checklist

| | |
|--|---|
| | Arrange for communications and cryptographic equipment, codes, and signal instructions; for their protection and security, and for their update or replacement, as necessary |
| | Arrange for the departure of the liaison party |
| | Complete route-reconnaissance and time-management plans so that you will arrive at the designated location on time |
| | Ensure you and your party know how you are to destroy the information you are carrying in an emergency, in transit, and at the receiving unit |
| | Ensure you have SOI, and that you and your party know the challenge and password |
| | Inform your HQ of when you will leave, the route you will take, when you will arrive, POC for linkup with receiving unit, when known, the estimated time and route of your return |
| | Pick up all correspondence designated for the receiving HQ |
| | Conduct a radio check (Ensure you have appropriate COMSEC equipment) |
| | Know the impending moves of your HQ and of the receiving HQ |
| | Bring the appropriate automation equipment or computers to support your operation |
| | Pack adequate supplies of Class I and III for use in transit |
| DURING THE LIAISON TOUR | |
| | Establish and maintain communication(s) with parent unit |
| | Notify your own HQ of your arrival |
| | Deliver all correspondence designated for the receiving HQ |
| | Visit staff elements, brief them on the situation of your unit, and collect information (maps, traces, overlays, etc.) from them |
| | Annotate on all overlays the security classification, title, map scale, grid intersection points, date-time group (DTG) information, DTG received, and from whom received |
| | Participate in supported unit's orders process, briefings, rehearsals and development of: <ul style="list-style-type: none"> - FSP/FSEM - FASP/FASM |
| | Advise on parent unit capabilities, requirements, limitations, and employment |
| | Visit and coordinate routinely with all supported unit staff elements |
| | Send parent unit updates on mission, locations, future operations, and commander's intent |
| | Organize sleep plan for 24-hour operations |
| | Ensure supported unit S3 is aware of your location at all times |
| | Accomplish mission without interfering with the supported unit's operations |
| | Facilitate information exchange |
| | Pick up all correspondence for your HQ when you left the receiving unit |
| | Inform the receiving HQ of when you would depart, what route you would take, and when you expect to arrive at the sending unit |
| AFTER RETURNING TO THE SENDING UNIT | |
| | Deliver all correspondence |
| | Brief the appropriate staff elements |
| | Prepare the necessary reports |

Figure 2-4. Example LNO Checklist (Continued)

| EXAMPLE OUTLINE OF A LNO'S HANDBOOK / TSOP | |
|---|---|
| 1. | Table of contents, with the sending unit's proponentcy statement |
| 2. | Purpose statement |
| 3. | Introduction statement |
| 4. | Definitions |
| 5. | Scope statement |
| 6. | Responsibilities and guidelines for conduct |
| 7. | Actions before departing from the sending unit |
| 8. | Actions on arriving at the receiving unit |
| 9. | Actions during liaison operations at the receiving unit |
| 10. | Actions before departing from the receiving unit |
| 11. | Actions on arrival at the sending unit |
| 12. | Sample questions |
| 13. | Information requirements |
| 14. | Required reports (from higher and sending units' TSOP) |
| 15. | Packing list (administrative supplies and unit TSOP, field uniform, equipment) |
| | a. Credentials |
| | b. Forms (1) DA Forms 1594 (Daily Staff Journal or Duty Officer's Log) (2) Other blank form |
| | c. References |
| | d. Computers for information and data exchange |
| | e. Signal operating instructions extract |
| | f. Security code encryption device |
| | g. Communications equipment, including remote equipment |
| | h. Phone book |
| | i. List of commanders and staff officers |
| | j. Telephone calling (credit) card |
| | k. Movement table |
| | l. Administrative equipment (pens, paper, scissors, tape, hole punch, and so on) |
| | m. Map and chart equipment (pens, pins, protractor, straight edge, scale, distance counter, acetate, unit markers, and so on) |
| 16. | Sending unit's command MTOE, unit status report (if appropriate because of the classification of the report) |

Figure 2-5. Example Outline of a LNO's Handbook/TSOP